Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS

1. (original) A compound of formula (I) or a salt thereof:

$$R^3$$
 R^{3a}
Het
 R^2

wherein:

 R^1 is C_{1-4} alkyl, C_{1-3} fluoroalkyl or -(CH₂)₂OH;

 R^2 is a hydrogen atom (H), methyl or C_1 fluoroalkyl;

 R^3 is optionally substituted branched C_{3-6} alkyl, optionally substituted C_{3-8} cycloalkyl, optionally substituted mono-unsaturated- C_{5-7} cycloalkenyl, optionally substituted phenyl, or an optionally substituted heterocyclic group of sub-formula (aa), (bb) or (cc):

or
$$n^1$$
 or n^2
(aa) (bb) (cc)

in which n^1 and n^2 independently are 1 or 2; and Y is O, S, SO_2 , or NR^4 ; where R^4 is a hydrogen atom (H), C_{1-2} alkyl, C_{1-2} fluoroalkyl, $CH_2C(O)NH_2$, $C(O)NH_2$, $C(O)-C_{1-2}$ alkyl, or $C(O)-C_1$ fluoroalkyl;

wherein in R^3 the optionally substituted branched C_{3-6} alkyl is optionally substituted with one or two substituents being oxo (=O), OH, C_{1-2} alkoxy or C_{1-2} fluoroalkoxy; and wherein any such substituent is not substituted at the R^3 carbon atom attached (bonded) to the -NH- group of formula (I);

wherein in R^3 the phenyl is optionally substituted with one substituent being fluoro, chloro, C_{1-2} alkyl, C_{1-2} fluoroalkyl, C_{1-2} alkoxy, C_{1-2} fluoroalkoxy or cyano, or with two or three fluoro substituents;

wherein in R^3 the C_{3-8} cycloalkyl or the heterocyclic group of sub-formula (aa), (bb) or (cc) is optionally substituted with one or two substituents independently being oxo (=O); OH; C_{1-2} alkoxy; C_{1-2} fluoroalkoxy; NHR 21 wherein R^{21} is a hydrogen atom (H) or C_{1-4} straight-chain alkyl; C_{1-2} alkyl; C_{1-2} fluoroalkyl; -CH $_2$ OH; -CH $_2$ CH $_2$ OH; -CH $_2$ NHR 22 wherein R^{22} is H or C_{1-2} alkyl; -C(O)OR 23 wherein R^{23} is H or C_{1-2} alkyl; -C(O)NHR 24 wherein R^{24} is H or C_{1-2} alkyl; -C(O)R 25 wherein R^{25} is C_{1-2} alkyl; fluoro; hydroxyimino (=N-OH); or (C_{1-4} alkoxy)imino (=N-OR 26 where R^{26} is C_{1-4} alkyl); and wherein any OH, alkoxy, fluoroalkoxy or NHR 21 substituent is not substituted at the R^3 ring carbon attached (bonded) to the -NH- group of formula (I) and is not substituted at either R^3 ring carbon bonded to the Y group of the heterocyclic group (aa), (bb) or (cc);

and wherein, when R^3 is optionally substituted mono-unsaturated- C_5 -7cycloalkenyl, then the cycloalkenyl is optionally substituted with one or two substituents independently being fluoro or C_{1-2} alkyl provided that if there are two substituents then they are not both C_2 alkyl, and the R^3 ring carbon bonded to the -NH- group of formula (I) does not partake in the cycloalkenyl double bond;

and R^{3a} is a hydrogen atom (H) or straight-chain C_{1-3} alkyl;

provided that when R^{3a} is C_{1-3} alkyl then R^3 is tetrahydro-2H-pyran-4-yl, cyclohexyl (i.e. unsubstituted), 3-hydroxy-cyclohexyl, 4-oxo-cyclohexyl or 4-(hydroxyimino)cyclohexyl;

and wherein Het is of sub-formula (i), (ii), (iii), (iv) or (v):

wherein:

 $w^1,\,w^2,\,w^4$ and w^5 is N; and w^3 is NR^W ;

 X^1 , X^3 and X^4 is N or CR^X ; X^2 is O, S or NR^X ; and X^5 is $CR^{X1}R^{X2}$ or $CR^{X3}R^{X4}$:

 Y^1 , Y^2 and Y^3 is CR^Y or N; Y^4 is O, S or NR^Y ; and Y^5 is $CR^{Y1}R^{Y2}$;

 Z^1 and Z^5 is O, S or NR^Z ; and Z^2 , Z^3 and Z^4 is N or CR^Z ;

wherein:

 R^{W} is a hydrogen atom (H) or C_{1-2} alkyl;

 R^{X} , R^{X2} , R^{Y} and R^{Y2} independently are:

a hydrogen atom (H);

C₁₋₈alkyl;

 C_{3-6} cycloalkyl optionally substituted by one or two C_{1-2} alkyl groups and/or by one oxo (=0) group;

- -(CH₂)_n^{2a}-C₃₋₆cycloalkyl optionally substituted, in the -(CH₂)_n^{2a}- moiety or in the C₃₋₆cycloalkyl moiety, by a C₁₋₂alkyl group, or optionally substituted in the C₃₋₆cycloalkyl moiety by a -CH₂C(O)NHC₁₋₂alkyl group, wherein n^{2a} is 1, 2 or 3;
- -(CH₂)_n³-S(O)₂-R⁵, -CH(C₁₋₂alkyl)-S(O)₂-R⁵, -CMe₂-S(O)₂-R⁵, or C₃₋₅cycloalkyl substituted at the connecting carbon atom by -S(O)₂-R⁵, wherein n³ is 1 or 2;

and R^5 is C_{1-4} alkyl, -NR¹⁵R¹⁶, phenyl, carbon-linked-pyridinyl or benzyl (wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two substituents independently being fluoro, chloro, C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy, C_{1} fluoroalkoxy or OH, and wherein the pyridinyl is optionally substituted by one methyl, methoxy or OH (including any tautomer thereof));

wherein R^{15} is H, C_{1-4} alkyl, phenyl, benzyl (wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two substituents independently being fluoro, chloro, C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy or C_{1} fluoroalkoxy), CH(Me)Ph, or carbonlinked-pyridinyl optionally substituted by one methyl, methoxy or OH (including any tautomer thereof);

and R^{16} is H or C_{1-2} alkyl;

or wherein R¹⁵ and R¹⁶ together are -(CH₂)_n^{3a}-X^{3a}-(CH₂)_n^{3b}- in which n^{3a} and n^{3b} independently are 2 or 3 and X^{3a} is a bond, -CH₂-, O, or NR^{8a} wherein R^{8a} is H or C₁₋₂alkyl, acetyl, -S(O)₂Me or phenyl, and wherein the ring formed by NR¹⁵R¹⁶ is optionally substituted on a ring carbon by one or two substituents independently being methyl or oxo (=O);

- $(CH_2)_n^4$ -NR⁶R⁷, -CH(C₁₋₂alkyl)-NR⁶R⁷, -CMe₂-NR⁶R⁷, or C₃₋₅cycloalkyl substituted at the connecting carbon atom by -NR⁶R⁷, wherein n⁴ is 0, 1, 2 or 3;

and R^6 and R^7 independently are H, C_{1-6} alkyl, C_{3-6} cycloalkyl, $-CH_2-C_{3-6}$ cycloalkyl, $-C(O)R^{17}$, $-S(O)_2R^{18}$, phenyl, benzyl (wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two substituents independently being fluoro, chloro,

 C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy or C_{1} fluoroalkoxy), or carbon-linked-pyridinyl optionally substituted by one methyl, methoxy or OH (including any tautomer thereof);

and wherein R¹⁷ and R¹⁸ independently are C₁₋₆alkyl,

 C_{3-6} cycloalkyl, optionally substituted 5-membered heteroaryl being furyl (furanyl) or 1,3-oxazolyl or isoxazolyl or oxadiazolyl or thienyl or 1,3-thiazolyl or isothiazolyl or pyrrolyl or imidazolyl or pyrazolyl (all independently optionally substituted by one oxo and/or one or two methyl), or phenyl or benzyl (wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two substituents independently being fluoro, chloro, C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy, C_{1} fluoroalkoxy or OH), or carbon-linked-pyridinyl optionally substituted by one methyl, methoxy or OH (including any tautomer thereof);

or R^6 and R^7 together are $-(CH_2)_n^5 - X^5 - (CH_2)_n^6$ in which n^5 and n^6 independently are 2 or 3 and X^5 is a bond, $-CH_2$ -, O, or NR^8 wherein R^8 is H, C_{1-2} alkyl, acetyl, $-S(O)_2$ Me or phenyl, and wherein the ring formed by NR^6R^7 is optionally substituted on a ring carbon by one or two substituents independently being methyl or oxo (=O);

- -(CH₂)_n⁷-O-R⁹; wherein n⁷ is 0, 1, 2 or 3 and R⁹ is H, C₁₋₆alkyl, C₃₋₆cycloalkyl, -CH₂-C₃₋₆cycloalkyl, -C(O)R¹⁷, phenyl, or benzyl (wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two of fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy); wherein n⁷ is 0 only when the -(CH₂)_n⁷-O-R⁹ is bonded to a carbon atom in the Het ring; and wherein n⁷ is not 0 when Het is of sub-formula (v) (i.e. n⁷ is not 0 for R^{X2} and for R^{Y2});
- $\begin{array}{l} \hbox{-(CH_2)_n}^{11}\hbox{-C(O)-NR}^{10}\hbox{R}^{11}, \hbox{-CH(C}_{1\text{-2}}\hbox{alkyl)-C(O)-NR}^{10}\hbox{R}^{11}, \\ \hbox{-CMe}_2\hbox{-C(O)-NR}^{10}\hbox{R}^{11}, \hbox{ or } C_{3\text{-5}}\hbox{cycloalkyl substituted at the connecting} \\ \hbox{carbon atom by -C(O)-NR}^{10}\hbox{R}^{11}, \hbox{ wherein } n^{11} \hbox{ is } 0, 1 \hbox{ or } 2; \\ \hbox{and wherein } R^{10} \hbox{ and } R^{11} \hbox{ independently are } H; C_{1\text{-6}}\hbox{alkyl}; \\ \hbox{C}_{1\text{-4}}\hbox{fluoroalkyl}; C_{2\text{-4}}\hbox{alkyl substituted by one OH or -OC}_{1\text{-2}}\hbox{alkyl other} \\ \hbox{than at the connection point; } C_{3\text{-6}}\hbox{cycloalkyl optionally substituted by one} \end{array}$

or two methyl groups; -CH₂-C₃₋₆cycloalkyl optionally substituted by one methyl, NH₂ or NHMe group; -(CH₂)_n¹⁷-Het²; carbon-linked-pyridinyl optionally substituted by one methyl, methoxy or OH (including any tautomer thereof); phenyl; benzyl; or -CH(C₁₋₂alkyl)Ph [wherein the phenyl, benzyl and -CH(C₁₋₂alkyl)Ph are independently optionally substituted on the aromatic ring by one or two substituents independently being: fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy, C₁fluoroalkoxy, OH, -NR¹⁰aR¹⁰b (wherein R¹⁰a is H or C₁₋₂alkyl and R¹⁰b is H, C₁₋₂alkyl, -C(O)-C₁₋₂alkyl or -S(O)₂-C₁₋₂alkyl), -C(O)-NR¹⁰cR¹⁰d (wherein R¹⁰c and R¹⁰d independently are H or C₁₋₂alkyl), or -S(O)₂-R¹⁰e (wherein R¹⁰e is C₁₋₂alkyl, NH₂, NHMe or NMe₂)];

wherein n^{17} is 0, 1 or 2 and wherein Het^2 is a 4-, 5- or 6- membered saturated heterocyclic ring containing one O or S ring atom or one NR^{27} ring group wherein R^{27} is H, C_{1-2} alkyl, -C(O)Me, or $-S(O)_2$ Me, wherein the Het^2 ring is optionally substituted on a ring carbon by one or two substituents independently being methyl or oxo (=O);

and wherein when n^{17} is 2 then the Het² ring can optionally contain one additional ring N atom at the Het² ring position bonded to the $-(CH_2)_n^{17}$ - moiety; provided that, when Het² contains one O or S or NR²⁷ ring atom/group and one additional ring N atom, then the O/S/NR²⁷ ring atom/group and the one additional ring N atom are not directly bonded to each other, and are separated by more than one carbon atom;

or R^{10} and R^{11} together are - $(CH_2)_n^8$ - X^6 - $(CH_2)_n^9$ - in which n^8 and n^9 independently are 2 or 3 and X^6 is a bond, - CH_2 -, O, or NR^{12} wherein R^{12} is H, C_{1-2} alkyl, acetyl, - $S(O)_2$ Me or phenyl, and wherein the ring formed by $NR^{10}R^{11}$ is optionally substituted on a ring carbon by one or two substituents independently being methyl or oxo (=O);

 $\hbox{-(CH$_2)$_n$}^{12}\hbox{-C(O)-OR$}^{13} \text{ wherein n12 is 0, 1 or 2; and wherein R13 is H,} \\ C_{1-6}\text{alkyl}, C_{3-6}\text{cycloalkyl}, \hbox{-CH$_2$-C$_3-6}\text{cycloalkyl}, \text{phenyl}, \text{ or benzyl} \\ \text{(wherein the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl and benzyl are independently optionally substituted on the phenyl are independently substituted on the phenyl are independently$

the aromatic ring by one or two of (independently) fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy);

- -(CH₂)_n¹³-C(O)-R^{13a} wherein n¹³ is 0, 1 or 2; and wherein R^{13a} is a hydrogen atom (H), C₁₋₆alkyl, C₁₋₂fluoroalkyl, C₃₋₆cycloalkyl, -CH₂-C₃₋₆cycloalkyl, benzyl, or phenyl; wherein the phenyl and benzyl are independently optionally substituted on the aromatic ring by one or two of (independently) fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy;
- -(CH₂)_n¹⁴-Het¹, -CH(C₁₋₂alkyl)-Het¹, -CMe₂-Het¹, or C₃₋₅cycloalkyl substituted at the connecting carbon atom by Het¹, wherein n¹⁴ is 0, 1 or 2 and wherein Het¹ is a 4-, 5-, 6- or 7-membered saturated heterocyclic ring; wherein said heterocyclic ring Het¹ contains one O or S ring atom and/or one NR¹⁴ ring group wherein R¹⁴ is H, C₁₋₄alkyl, C₃₋₆cycloalkyl,

wherein R^{19} , independent of any other R^{19} , is $C_{1\text{-}6}alkyl$,

benzyl, phenyl, $-C(O)R^{19}$, or $-S(O)_2R^{19}$;

C₃₋₆cycloalkyl, thienyl, furyl (furanyl), or phenyl or benzyl; wherein the phenyl and benzyl are independently optionally substituted by one or two of (independently) fluoro, methyl or methoxy;

and wherein said heterocyclic ring Het^1 is optionally substituted (at a position or positions other than any NR^{14} position) by one or two oxo (=0) and/or one C_{1-4} alkyl substituents;

provided that, when the heterocyclic ring Het¹ contains one O or S ring atom and one NR¹⁴ ring group then: (a) the O/S ring atom and the NR¹⁴ ring group are not directly bonded to each other, and (b) the O/S ring atom and the NR¹⁴ ring group are separated by more than one carbon atom unless Het¹ contains an -NR¹⁴-C(O)-O- or -NR¹⁴-C(O)-S- moiety as part of the ring; or

-(CH₂)_n¹⁰-Ar, -CH(C₁₋₂alkyl)-Ar, -CMe₂-Ar, or C₃₋₅cycloalkyl substituted at the connecting carbon atom by Ar, wherein n^{10} is 0, 1 or 2 and (i) Ar is phenyl optionally substituted by one or two substituents independently being fluoro, chloro, bromo, C₁₋₂alkyl, C₁₋₂fluoroalkyl, C₁₋₂alkoxy, C₁₋₂fluoroalkoxy, OH, -NR^{11a}R^{11b} (wherein R^{11a} is H or

 C_{1-2} alkyl and R^{11b} is H, C_{1-2} alkyl, -C(O)- C_{1-2} alkyl or $-S(O)_2$ - C_{1-2} alkyl), cyano, -C(O)- $NR^{11c}R^{11d}$ (wherein R^{11c} and R^{11d} independently are H or C_{1-2} alkyl), -C(O)- OR^{11e} wherein R^{11e} is H or C_{1-2} alkyl, or $-S(O)_2$ - R^{11f} (wherein R^{11f} is C_{1-2} alkyl, NH_2 , NHMe or NMe_2); or the phenyl Ar is optionally substituted at two adjacent Ar ring atoms by the two ends of a chain which is: $-(CH_2)_4$ -, $-(CH_2)_3$ -, or -CH=CH-CH=CH-; or

(ii) Ar is an optionally substituted 5- or 6-membered heterocyclic aromatic ring containing 1, 2, 3 or 4 heteroatoms selected from O, N or S; and wherein when the heterocyclic aromatic ring Ar contains 2, 3 or 4 heteroatoms, one is selected from O, N and S and the remaining heteroatom(s) are N; and wherein the heterocyclic aromatic ring Ar is optionally substituted by one or two groups independently being C₁₋₄alkyl or OH (including any keto tautomer of an OH-substituted aromatic ring), or the heterocyclic aromatic ring Ar is optionally substituted at two adjacent Ar ring atoms by the two ends of a chain which is: -(CH₂)₄-, -(CH₂)₃-, or -CH=CH-CH=CH-;

 R^{X1} and R^{Y1} independently are a hydrogen atom (H), $C_{1\text{-}2}$ alkyl or C_{1} fluoroalkyl;

 R^{X3} and R^{X4} together are - $(CH_2)_n^{15}$ - X^7 - $(CH_2)_n^{16}$ - wherein n^{15} and n^{16} independently are 1 or 2 and X^7 is a bond, - CH_2 -, O, or NR^{X5} wherein R^{X5} is H, C_{1-2} alkyl, acetyl or - $S(O)_2$ Me; and

RZ is a hydrogen atom (H) or C₁₋₂alkyl,

provided that:

when R^3 is the heterocyclic group of sub-formula (bb), n^1 is 1, and Y is NR^4 , then R^4 is not C_{1-2} alkyl, C_{1-2} fluoroalkyl or $CH_2C(O)NH_2$.

2. (original) A compound of formula (IA) or a salt thereof:

wherein:

R¹ is C₁₋₄alkyl, C₁₋₃fluoroalkyl or -(CH₂)₂OH;

R² is a hydrogen atom (H), methyl or C₁fluoroalkyl;

R³ is optionally substituted branched C₃₋₆alkyl, optionally substituted C₃₋₈cycloalkyl, optionally substituted phenyl, or an optionally substituted heterocyclic group of sub-formula (aa), (bb) or (cc):

or
$$n^1$$
 or n^2
(aa) (bb) (cc)

in which n^1 and n^2 independently are 1 or 2; and Y is O, S, SO₂, or NR⁴; where R⁴ is a hydrogen atom (H), C₁₋₂alkyl, C₁₋₂fluoroalkyl, CH₂C(O)NH₂, C(O)NH₂, C(O)-C₁₋₂alkyl, or C(O)-C₁fluoroalkyl;

wherein in R^3 the optionally substituted branched C_{3-6} alkyl is optionally substituted with one or two substituents being oxo (=O), OH, C_{1-2} alkoxy or C_{1-2} fluoroalkoxy; and wherein any such substituent is not substituted at the R^3 carbon atom attached (bonded) to the -NH- group of formula (IA);

wherein in \mathbb{R}^3 the phenyl is optionally substituted with one substituent being fluoro, chloro, C_{1-2} alkyl, C_{1-2} fluoroalkyl, C_{1-2} alkoxy, C_{1-2} fluoroalkoxy or cyano;

wherein in R^3 the C_{3-8} cycloalkyl or the heterocyclic group of sub-formula (aa), (bb) or (cc) is optionally substituted with one or two substituents being oxo (=O), OH, C_{1-2} alkoxy, C_{1-2} fluoroalkoxy, or C_{1-2} alkyl; and wherein any OH, alkoxy or fluoroalkoxy substituent is not substituted at the R^3 ring carbon attached (bonded) to the -NH- group of formula (IA) and is not substituted at either R^3 ring carbon bonded to the Y group of the heterocyclic group (aa), (bb) or (cc);

and wherein Het is of sub-formula (i), (ii), (iii), (iv) or (v):

wherein:

 W^1 , W^2 , W^4 and W^5 is N; and W^3 is NR^W ;

 X^1 , X^3 and X^4 is N or CR^X ; X^2 is O, S or NR^X ; and X^5 is $CR^{X1}R^{X2}$;

 Y^1 , Y^2 and Y^3 is CR^Y or N; Y^4 is O, S or NR^Y ; and Y^5 is $CR^{Y1}R^{Y2}$;

 Z^1 and Z^5 is O, S or NR^Z ; and Z^2 , Z^3 and Z^4 is N or CR^Z ;

wherein:

RW is a hydrogen atom (H) or C₁₋₂alkyl;

 $R^{X},\,R^{X2},\,R^{Y}$ and R^{Y2} independently are:

a hydrogen atom (H);

 C_{1-8} alkyl;

 C_{3-6} cycloalkyl optionally substituted by a C_{1-2} alkyl group;

- -(CH₂)_n^{2a}-C₃₋₆cycloalkyl optionally substituted, in the -(CH₂)_n^{2a}- moiety or in the C₃₋₆cycloalkyl moiety, by a C₁₋₂alkyl group, wherein n^{2a} is 1, 2 or 3;
- -(CH₂) $_n$ ³-SO₂-R⁵ wherein n³ is 1 or 2 and R⁵ is C₁₋₃alkyl or -NH-C₁₋₂alkyl or phenyl;
- -(CH₂)_n⁴-NR⁶R⁷ wherein n⁴ is 0, 1, 2 or 3, and R⁶ and R⁷ independently are H, C₁₋₆alkyl, C₃₋₆cycloalkyl, -CH₂-C₃₋₆cycloalkyl, -C(O)-C₁₋₂alkyl, -SO₂-C₁₋₂alkyl, phenyl, or benzyl (wherein the phenyl or benzyl are independently optionally substituted on the aromatic ring by one of fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy); or R⁶ and R⁷ together are -(CH₂)_n⁵-X⁵-(CH₂)_n⁶- in which n⁵ and n⁶ independently are 2 or 3 and X⁵ is a bond, -CH₂-, O, or NR⁸ wherein R⁸ is H or C₁₋₂alkyl;
- -(CH₂)_n⁷-O-R⁹; wherein n⁷ is 0, 1, 2 or 3 and R⁹ is H or C₁₋₆alkyl; wherein n⁷ is 0 only when the -(CH₂)_n⁷-O-R⁹ is bonded to a carbon atom in the Het ring; and wherein n⁷ is not 0 when Het is of sub-formula (v) (i.e. n⁷ is not 0 for R^{X2} and for R^{Y2});
- -C(O)-NR¹⁰R¹¹ wherein R¹⁰ and R¹¹ independently are H, C₁₋₆alkyl, C₃₋₆cycloalkyl, -CH₂-C₃₋₆cycloalkyl, phenyl, or benzyl (wherein the phenyl or benzyl are independently optionally substituted on the aromatic ring by one of fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy); or R¹⁰ and R¹¹ together are -(CH₂)_n⁸-X⁶-(CH₂)_n⁹- in which n⁸ and n⁹ independently are 2 or 3 and X⁶ is a bond, -CH₂-, O, or NR¹² wherein R¹² is H or C₁₋₂alkyl;
- -C(O)-OR¹³ wherein R¹³ is H, C₁₋₆alkyl, C₃₋₆cycloalkyl,

 -CH₂-C₃₋₆cycloalkyl, phenyl, or benzyl (wherein the phenyl or benzyl are independently optionally substituted on the aromatic ring by one of fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy or C₁fluoroalkoxy);
- -C(O)-R^{13a} wherein R^{13a} is a hydrogen atom (H), C_{1-6} alkyl, C_{1-2} fluoroalkyl, C_{3-6} cycloalkyl, -CH₂-C₃₋₆cycloalkyl, benzyl, or phenyl; wherein the phenyl or benzyl are independently optionally substituted on the aromatic

ring by one of fluoro, chloro, C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy or C_{1} fluoroalkoxy;

- a 4-, 5-, 6- or 7-membered saturated heterocyclic ring containing one O ring atom or one NR¹⁴ ring group wherein R¹⁴ is H or C₁₋₄alkyl, said heterocyclic ring being optionally substituted (at a position or positions other than any NR¹⁴ position) by one oxo (=O) and/or one C₁₋₄alkyl substituent; or
- $-(CH_2)_n^{10}$ -Ar wherein n^{10} is 0, 1 or 2 and
 - (i) Ar is phenyl optionally substituted by one or two substituents being fluoro, chloro, C_{1-2} alkyl, C_{1-2} fluoroalkyl, C_{1-2} alkoxy, C_{1-2} fluoroalkoxy or cyano; or
 - (ii) Ar is an optionally substituted 5- or 6-membered heterocyclic aromatic ring containing 1, 2 or 3 heteroatoms selected from O, N or S; and wherein when the heterocyclic aromatic ring Ar contains 2 or 3 heteroatoms, one is selected from O, N and S and the remaining heteroatom(s) are N; and wherein the heterocyclic aromatic ring Ar is optionally substituted by one or two C₁₋₄alkyl groups;

 R^{X1} and R^{Y1} independently are a hydrogen atom (H), $C_{1\text{-}2}$ alkyl or C_{1} fluoroalkyl; and

 R^{Z} is a hydrogen atom (H) or C_{1-2} alkyl;

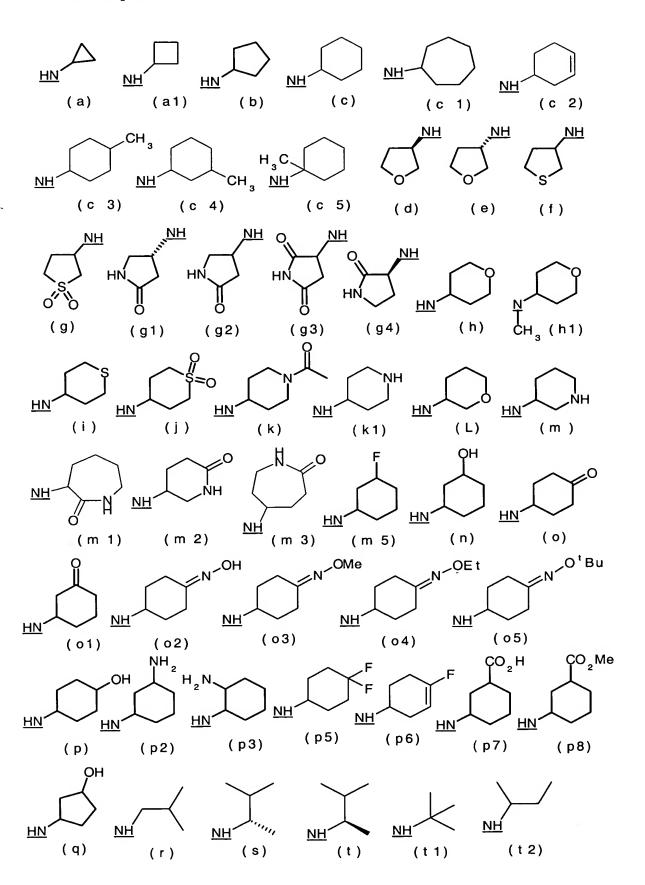
provided that, when R^3 is the heterocyclic group of sub-formula (bb), n^1 is 1, and Y is NR⁴, then R⁴ is not C_{1-2} alkyl, C_{1-2} fluoroalkyl or $CH_2C(O)NH_2$.

- 3. (original) A compound or salt as claimed in claim 1, wherein R^{3a} is a hydrogen atom (H).
- 4. (currently amended) A compound or salt as claimed in claim 1 2 or 3, wherein R² is a hydrogen atom (H) or methyl.

- 5. (currently amended) A compound or salt as claimed in claim 1 $\frac{2}{2}$, $\frac{3}{3}$ or 4, wherein R¹ is C₁₋₃alkyl, C₁₋₂fluoroalkyl or -CH₂CH₂OH.
- 6. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein R^1 is ethyl, n-propyl, C_2 fluoroalkyl or -CH₂CH₂OH.
- 7. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein R^1 is ethyl.
- 8. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein in \mathbb{R}^3 there is one substituent or no substituent.
- 9. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein, where R^3 is optionally substituted branched $\underline{C_{3^{-6}}}$ alkyl, then R^3 is isobutyl, seebutyl, t butyl or 3-methylbutan 2-yl $\underline{C_{3^{-6}}}$ cycloalkylor the optionally substituted heterocyclic group of sub-formula (aa), (bb) or (cc).
- 10. (currently amended) A compound or salt as claimed in any preceding claim 7, wherein, when R³ is optionally substituted phenyl, then the phenyl is optionally substituted with one substituent being fluoro, C₁alkyl, C₁fluoroalkyl, C₁alkoxy, or C₁fluoroalkoxy C₃₋₈cycloalkyl or the optionally substituted heterocyclic group of sub-formula (aa), (bb) or (cc).
- 11. (currently amended) A compound or salt as claimed in any preceding claim 9, wherein, where R^3 is optionally substituted C_{3-8} cycloalkyl, then R^3 is optionally substituted C_{6-8} cycloalkyl.
- 12. (currently amended) A compound or salt as claimed in claim 11, wherein, where R^3 is optionally substituted C_{3-8} cycloalkyl, then R^3 is optionally substituted cyclohexyl.

- 13. (currently amended) A compound or salt as claimed in any preceding claim 9, wherein, where R^3 is optionally substituted C_{3-8} cycloalkyl, then the one or two optional substituents is or independently are: oxo (=O); OH; NHR²¹ wherein R^{21} is a hydrogen atom (H); methyl; -CH₂F; -CHF₂; -C(O)OR²³ wherein R^{23} is H; fluoro; hydroxyimino (=N-OH); or (C_{1-2} alkoxy)imino (=N-OR²⁶ where R^{26} is C_{1-2} alkyl).
- 14. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein, where R^3 is optionally substituted C_{3-8} cycloalkyl, then the one or two optional substituents is or independently are OH, oxo (=O) or hydroxyimino (=N-OH).
- 15. (currently amended) A compound or salt as claimed in any preceding-claim $\underline{9}$, wherein, where R^3 is optionally substituted C_{3-8} cycloalkyl, then the one or two optional substituents if present is or are substituent(s) at the 3-, 4- or 5- position(s) of the R^3 cycloalkyl ring, (wherein the 1-position of the R^3 cycloalkyl ring is deemed to be the connection point to the -NH- in formula (I)) or (IA) or (IB).
- 16. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein, where R^3 is optionally substituted C_6 cycloalkyl, then R^3 is cyclohexyl (i.e. unsubstituted), 3-hydroxy-cyclohexyl (i.e. 3-hydroxycyclohexan-1-yl), 4-oxo-cyclohexyl (i.e. 4-oxocyclohexan-1-yl), 4-(hydroxyimino)cyclohexyl (i.e. 4-(hydroxyimino)cyclohexan-1-yl), 4-(C_{1-2} alkoxyimino)cyclohexyl, 1-methylcyclohexyl or 3-methylcyclohexyl.
- 17. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein, where R^3 is optionally substituted mono-unsaturated- C_{5-7} cycloalkenyl, then R^3 is optionally substituted mono-unsaturated- C_{6} cycloalkenyl (i.e. optionally substituted mono-unsaturated-cyclohexenyl), and wherein the R^3 cycloalkenyl is optionally substituted with one or two substituents independently being fluoro or methyl.

- 18. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein \mathbb{R}^4 is a hydrogen atom (H) or C(O)-Me.
- 19. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein, where R^3 is the heterocyclic group of sub-formula (aa), (bb) or (cc), then Y is O.
- 20. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein where R^3 is the heterocyclic group of sub-formula (aa), (bb) or (cc), then R^3 is the heterocyclic group of sub-formula (bb) and n^1 is 1.
- 21. (currently amended) A compound or salt as claimed in any preceding claim 9, wherein, in R³, the heterocyclic group of sub-formula (aa), (bb) or (cc) is unsubstituted (wherein, where Y is NR⁴, R⁴ is not classified as a substituent).
- 22. (currently amended) A compound or salt as claimed in any of claims 1 to 20 9, wherein, in the R³ heterocyclic group of sub-formula (aa), (bb) or (cc), the one or two optional substituents is or are oxo (=0).
- 23. (currently amended) A compound or salt as claimed in any preceding claim $\underline{9}$, wherein when R^3 is the heterocyclic group of sub-formula (aa), then Y is not NR^4 , andwhen R^3 is the heterocyclic group of sub-formula (bb) and Y is NR^4 , then R^4 is not C_{1-2} alkyl, C_{1-2} fluoroalkyl or $CH_2C(O)NH_2$.
- 24. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein \overline{NHR}^3 or NR^3R^{3a} is of sub-formula (a), (a1), (b), (c), (c 1), (c 2), (c 3), (c 4), (c 5), (d), (e), (f), (g), (g1), (g2), (g3), (g4), (h), (h1), (i), (j), (k), (k1), (L), (m), (m1), (m2), (m3), (m5), (n), (o), (o1), (o2), (o3), (o4), (o5), (p), (p2), (p3), (p5), (p6), (p7), (p8), (q), (r), (s), (t), (t1) or (t2):



- 25. (currently amended) A compound or salt as claimed in claim 24, wherein NHR³ or NR³R^{3a} is of sub-formula (c), (c1), (c 4), (c 5), (h), (i), (j), (k), (m1), (m2), (n), (o), (o2), (o3), (p2), (p5), (p6), (r), (s) or (t1).
- 26. (currently amended) A compound or salt as claimed in claim 24, wherein NHR³ or NR³R^{3a} is of sub-formula (c), (h), (k), (n), (o), (o2) or (s).
- 27. (currently amended) A compound or salt as claimed in claim 24, wherein $\frac{1}{2}$ or $\frac{1}{2}$ or $\frac{1}{2}$ is of sub-formula (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (L), (m), (n), (o), (p), (q), (r), (s) or (t).
- 28. (currently amended) A compound or salt as claimed in claim 24, wherein $\frac{1}{N}$ or R^3 is tetrahydro-2H-pyran-4-yl and R^{3a} is H; that is NR^3R^{3a} is of subformula (h).
- 29. (currently amended) A compound or salt as claimed in any preceding claim 1, wherein Het is of sub-formula (i), (ii) or (v).
- 30. (original) A compound or salt as claimed in claim 29, wherein Z^1 and Z^5 are 0.
- 31. (currently amended) A compound or salt as claimed in claim 29 or 30, wherein Het is of sub-formula (ia), (ib), (ic), (id), (ie), (if), (ig), (va), (vb) or (iia):

- 32. (currently amended) A compound or salt as claimed in claim 31, wherein Het is of sub-formula (ia), (ib), (ic), or (id), (if), (ig), (va), or (iaa).
- 33. (currently amended) A compound or salt as claimed in claim 31, wherein Het is of sub-formula (ia), (ic), or (id) or (va).
- 34. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein R^{W} and R^{Z} are a hydrogen atom (H).
- 35. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein for the Het group, one of R^X and R^Y (or R^{X2} and R^{Y2}) is as defined herein and the other of R^X and R^Y (or R^{X2} and R^{Y2}) is a hydrogen atom (H).

36. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein R^X , R^{X2} , R^Y and R^{Y2} independently are:

```
a hydrogen atom (H);  C_{1-8} \text{alkyl};  optionally substituted C_{3-6} \text{cycloalkyl};  optionally substituted -(CH_2)_n^{2a} - C_{3-6} \text{cycloalkyl};  -(CH_2)_n^3 - S(O)_2 - R^5, -CH(Me) - S(O)_2 - R^5, \text{ or } C_3 \text{cycloalkyl substituted at the }   \text{connecting carbon atom by } -S(O)_2 - R^5;  -(CH_2)_n^4 - NR^6R^7 \text{ or } -CH(Me) - NR^6R^7;  -(CH_2)_n^7 - O - R^9;  -(CH_2)_n^{11} - C(O) - NR^{10}R^{11} \text{ or } -CH(Me) - C(O) - NR^{10}R^{11};  -(CH_2)_n^{12} - C(O) - OR^{13};  -(CH_2)_n^{13} - C(O) - R^{13}a;  -(CH_2)_n^{14} - Het^1 \text{ or } -CH(Me) - Het^1; \text{ or }  -(CH_2)_n^{10} - Ar \text{ or } -CH(Me) - Ar.
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- 37. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein one of R^X and R^Y , and for Het of sub-formula (v) one of R^{X2} and R^{Y2} , is: $-(CH_2)_n^4-NR^6R^7$, $-CH(Me)-NR^6R^7$, $-(CH_2)_n^{11}-C(O)-NR^{10}R^{11}$, $-(CH_2)_n^{14}-Het^1$, or $-(CH_2)_n^{10}-Ar$.
- 38. (currently amended) A compound or salt as claimed in any preceding claim $\underline{1}$, wherein R^X , R^{X2} , R^Y and R^{Y2} independently are:

C₁₋₆alkyl; optionally substituted C₃₋₆cycloalkyl;

-(CH₂) $_n^{2a}$ -C₃₋₆cycloalkyl optionally substituted by a C₁₋₂alkyl group; wherein n^{2a} is 1;

 $-(CH_2)_n^3-S(O)_2-R^5 \ \, \text{or} \ \, C_3 \text{cycloalkyl substituted at the connecting carbon atom} \\ \text{by} -S(O)_2-\text{Ph}, \ \, \text{wherein} \ \, n^3 \ \, \text{is} \ \, 1 \ \, \text{and} \ \, R^5 \ \, \text{is} \ \, C_{1-4} \text{alkyl}, \ \, -NR^{15}R^{16}, \ \, \text{optionally substituted} \\ \text{phenyl or optionally substituted benzyl; wherein} \ \, R^{16} \ \, \text{is} \ \, \text{H} \ \, \text{or} \ \, \text{methyl and} \ \, R^{15} \ \, \text{is} \ \, \text{H}, \\ C_{1-4} \text{alkyl or optionally substituted phenyl; or} \ \, R^{15} \ \, \text{and} \ \, R^{16} \ \, \text{together are} \\ -(CH_2)_n^{3a}-X^{3a}-(CH_2)_n^{3b}- \ \, \text{wherein} \ \, n^{3a} \ \, \text{and} \ \, n^{3b} \ \, \text{are} \ \, 2 \ \, \text{and} \ \, X^{3a} \ \, \text{is} \ \, a \ \, \text{bond,} \ \, -CH_2-, O, \\ \end{array}$

or NR^{8a} wherein R^{8a} is C_{1-2} alkyl or acetyl; and the ring formed by $NR^{15}R^{16}$ is not substituted on a ring carbon or is substituted on a ring carbon by one methyl or oxo (=0) substituent;

- $(CH_2)_n^4$ -NR⁶R⁷, -CH(Me)-NR⁶R⁷ or -CMe₂-NR⁶R⁷ wherein n⁴ is 0 (when the - $(CH_2)_n^4$ -NR⁶R⁷ is bonded to a carbon atom in the Het ring) or wherein n⁴ is 1; and wherein R⁶ is H or C₁₋₄alkyl and R⁷ is H, C₁₋₄alkyl, -C(O)R¹⁷ or -S(O)₂R¹⁸; or R⁶ and R⁷ together are - $(CH_2)_n^5$ -X⁵- $(CH_2)_n^6$ - in which n⁵ and n⁶ are 2 and X⁵ is a bond, -CH₂-, O, or NR⁸, and wherein the ring formed by NR⁶R⁷ is not substituted on a ring carbon or is substituted on a ring carbon by one methyl or oxo (=O) substituent;

 $\begin{array}{l} \hbox{-(CH_2)}_n{}^7\hbox{-O-R}^9, \text{ wherein } n^7 \text{ is } 1 \text{ or } 2 \text{ and } R^9 \text{ is } H, C_{1\text{-}4} \text{alkyl or phenyl;} \\ \hbox{-(CH_2)}_n{}^{11}\hbox{-C(O)-NR}^{10} R^{11} \text{ , -CH(Me)-C(O)-NR}^{10} R^{11} \text{ or} \\ \hbox{-CMe}_2\hbox{-C(O)-NR}^{10} R^{11}, \text{ wherein } n^{11} \text{ is } 0 \text{ or } 1, \end{array}$

and R¹⁰ is H or C₁₋₆alkyl,

and R¹¹ is: H; C₁₋₆alkyl; C₃₋₆cycloalkyl optionally substituted by one or two methyl groups; -CH₂-C₃₋₆cycloalkyl (unsubstituted); -(CH₂)_n¹⁷-Het²; optionally substituted carbon-linked-pyridinyl; optionally substituted phenyl, optionally substituted benzyl; or optionally substituted -CH(C₁₋₂alkyl)Ph; wherein the phenyl, the benzyl and the -CH(C₁₋₂alkyl)Ph are independently optionally substituted on the aromatic ring by one or two substituents independently being: fluoro, chloro, C₁₋₂alkyl, C₁fluoroalkyl, C₁₋₂alkoxy, C₁fluoroalkoxy, -NR¹⁰aR¹⁰b (wherein R¹⁰a is H or methyl and R¹⁰b is H, C₁₋₂alkyl, -C(O)Me or -S(O)₂Me), -C(O)-NR¹⁰cR¹⁰d (wherein R¹⁰c and R¹⁰d independently are H or C₁₋₂alkyl), or -S(O)₂-R¹⁰e (wherein R¹⁰e is C₁₋₂alkyl, NH₂, NHMe or NMe₂); and wherein the carbon-linked-pyridinyl is preferably optionally substituted by one OH (including any keto tautomer thereof);

or R^{10} and R^{11} together are - $(CH_2)_n^8$ - X^6 - $(CH_2)_n^9$ - in which n^8 and n^9 are 2 and X^6 is a bond, - CH_2 -, O, or NR^{12} ;, and wherein the ring formed by $NR^{10}R^{11}$ is not substituted on a ring carbon or is substituted on a ring carbon by one methyl or oxo (=O) substituent;

 $\begin{array}{l} \hbox{-(CH_2)_n}^{12}\hbox{-C(O)-OR}^{13} \text{ , wherein } n^{12} \text{ is 0 or 1, and } R^{13} \text{ is H or C}_{1\text{-4}alkyl}; \\ \hbox{-(CH_2)_n}^{13}\hbox{-C(O)-R}^{13a}, \ n^{13} \text{ is 0 or 1, and } R^{13a} \text{ is C}_{1\text{-6}alkyl}, C_{1\text{-2}}\text{fluoroalkyl}, \\ \hbox{C}_{3\text{-6}cycloalkyl}, \hbox{-CH}_2\hbox{-C}_{3\text{-6}cycloalkyl}, \text{benzyl, or phenyl (wherein the phenyl and} \end{array}$

benzyl are independently optionally substituted on the aromatic ring by one of fluoro, chloro, C_{1-2} alkyl, C_{1} fluoroalkyl, C_{1-2} alkoxy or C_{1} fluoroalkoxy);

- $(CH_2)_n^{14}$ -Het¹, -CH(Me)-Het¹, or - CMe_2 -Het¹, wherein n¹⁴ is 0 or 1, and Het¹ is 4-, 5- or 6-membered heterocyclic ring, and R¹⁴ is C_{1-4} alkyl, $C(O)R^{19}$ or $S(O)_2R^{19}$ wherein R¹⁹ is C_{1-4} alkyl, C_{3-6} cycloalkyl, 2-thienyl, furan-2-yl, phenyl (unsubstituted) or benzyl (unsubstituted);

or

- $(CH_2)_n^{10}$ -Ar wherein n^{10} is 0 or 1.

39. (currently amended). A compound or salt as claimed in any preceding claim 1, which is:

N-Cyclopentyl-1-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentylcyclopentyl-1-ethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentyl-1-ethyl-5-(5-isopropyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentyl-1-ethyl-5-(5-methyl-1,3,4-thiadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentyl-1-ethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-thiadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentylcyclopentyl-1-ethyl-5-(5-isopropyl-1,3,4-thiadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

1-Ethylethyl-N-(4-fluorophenyl)-5-(3-methyl-1,2,4-oxadiazol-5-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentylcyclopentyl-5-(1,3-dimethyl-1H-1,2,4-triazol-5-yl)-1-ethyl-1H-pyrazolo[3,4-b]pyridin-4-amine,

1-Ethylethyl-5-(5-isopropyl-1,3,4-oxadiazol-2-yl)-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,

N-Cyclopentylcyclopentyl-1-ethyl-5-(5-isopropyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

1-Ethylethyl-N-isobutyl-5-(5-isopropyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

- 1-Ethylethyl-N-isobutyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-cyclohexyl-1-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-[(1R)-1,2-dimethylpropyl]-1-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-[(1S)-1,2-dimethylpropyl]-1-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Tert-butyl-1,3,4-oxadiazol-2-yl)-1-ethyl-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Tert-butyl-1,3,4-oxadiazol-2-yl)-N-cyclohexyl-1-ethyl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Tert-butyltert-butyl-1,3,4-oxadiazol-2-yl)-N-cyclopentyl-1-ethyl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5 Tert-butyl-1,3,4-oxadiazol-2-yl)-1-ethyl-N-isobutyl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Tert-butyl-1,3,4-oxadiazol-2-yl)-N-[(1S)-1,2-dimethylpropyl]-1-ethyl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Tert-butyl-1,3,4-oxadiazol-2-yl)-N-[(1R)-1,2-dimethylpropyl]-1-ethyl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-Cyclohexyl-1-ethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl -N-isobutyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-[(1S)-1,2-dimethylpropyl]-1-ethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-[(1R)-1,2-dimethylpropyl]-1-ethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-(3-methyl-1,2,4-oxadiazol-5-yl)-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,

- 1-Ethylethyl-5-[3-(methoxymethyl)-1,2,4-oxadiazol-5-yl]-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-{3-[(Dimethylaminodimethylamino)methyl]-1,2,4-oxadiazol-5-yl}-1-ethyl-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[3-(morpholin-4-ylmethyl)-1,2,4-oxadiazol-5-yl]-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Cyclopropylcyclopropyl-1,3,4-oxadiazol-2-yl)-1-ethyl-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-(1-Acetylacetypiperidin-4-yl)-1-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(3-methyloxetan-3-yl)-1,3,4-oxadiazol-2-yl]-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-{5-[(4-methylpiperazin-1-yl)methyl]-1,3,4-oxadiazol-2-yl}-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-[1—Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-isopropyl-1,3,4-oxadiazole-2-carboxamide,
- 4-{5-[1—Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}-1-methylpyrrolidin-2-one,
- 1-Ethylethyl-N-tetrahydro-2H-pyran-4-yl-5-(5-tetrahydro-2H-pyran-4-yl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(morpholin-4-ylmethyl)-1,3,4-oxadiazol-2-yl]-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-[5-(Tert-butoxymethyltert-butoxymethyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-N-tetrahydro-2H-pyran-4-yl-1H-pyrazolo[3,4-b]pyridin-4-amine, or
- methyl 2-[1-ethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,3-oxazole-4-carboxylate;

or a salt thereof.

- 40. (currently amended) A compound or salt as claimed in any of claims claim 1 to 38, which is:
- Methylmethyl 2-[1-ethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-4,5-dihydro-1,3-oxazole-4-carboxylate,
- 1-Ethylethyl-5-(4-methyl-4,5-dihydro-1,3-oxazol-2-yl)-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,

- 1-(n-Propylpropyl)-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(tetrahydrofuran-2-yl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(dimethylamino)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-(5-methyl-1,2,4-triazol-3-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-(1-Acetylacetylpiperidin-4-yl)-1-ethyl-5-(3-methyl-1,2,4-oxadiazol-5-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine, or
- $N-(1-Acetyl\underline{acetyl}piperidin-4-yl)-1-ethyl-5-[3-(morpholin-4-ylmethyl)-1,2,4-oxadiazol-5-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine;$

or a salt thereof.

- 41. (currently amended) A compound or salt as claimed in any of claims claim 1 to 38, which is:
- 1-Ethylethyl-5-[(4R)-4-phenyl-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(4S)-4-phenyl-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(4S)-4-(phenylmethyl)-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(4R)-4-(phenylmethyl)-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(4S,5R)-5-methyl-4-phenyl-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(5R)-5-phenyl-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-[(5S)-5-phenyl-4,5-dihydro-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(4,4-Dimethyldimethyl -4,5-dihydro-1,3-oxazol-2-yl)-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxylic acid,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-(1-methylethyl)-1,3-oxazole-4-carboxamide,
- 1-Ethylethyl-5-[4-(4-morpholinylcarbonyl)-1,3-oxazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-N-methyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- trans-4-{[1-Ethylethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-yl]amino}cyclohexanol,
- 1-Ethylethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-(tetrahydro-2H-pyran-3-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 4-{[1-Ethylethyl -5-(5-methyl-1,3,4-oxadiazol-2-yl)-1H-pyrazolo[3,4-b]pyridin-4-yl]amino}cyclohexanone,
- 1-Ethylethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-n-propyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-[5-(1,1-Dimethylethyldimethylethyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-6-methyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-6-methyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(tetrahydro-2H-pyran-4-yl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-(5-Cyclobutyl <u>cyclobutyl</u> -1,3,4-oxadiazol-2-yl)-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-{5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}-2-pyrrolidinone,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}methyl)acetamide,
- 1-Ethylethyl-5-[5-(1-methyl-2-piperidinyl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl-5-{5-[(4-methyl-1,2,5-oxadiazol-3-yl)methyl]-1,3,4-oxadiazol-2-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 3-{5-[1—Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}cyclopentanone,

- 1-Ethylethyl-5-[5-(tetrahydro-3-furanyl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- (4S)-4-{5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}-1,3-thiazolidin-2-one,
- 5-[5-(2,2-Dimethylcyclopropyldimethylcyclopropyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}methyl)-N-methylacetamide,
- 1—Ethylethyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(tetrahydro-2H-pyran-4-ylmethyl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1—Ethylethyl-5-[5-(1-methylcyclobutyl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1—Ethylethyl-5-[5-(3-methyl-5-isoxazolyl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1—Ethylethyl-5-[5-(1-methyl-1H-pyrazol-5-yl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-[5-(1-Acetylacetyl -4-piperidinyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1—Ethylethyl-5-{3-[(4-methyl-1-piperazinyl)methyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-Ethylethyl -5-[3-(4-fluorophenyl)-1,2,4-oxadiazol-5-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine, or
- 1-Ethylethyl-5-{3-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine; or a salt thereof.
- 42. (currently amended) A compound or salt as claimed in any of claims claim 1 to 38, which is:
- 2-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}-*N*-phenylacetamide,
- 2-{5-[1-Ethylethyl -4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}-*N*-(1-phenylethyl)acetamide,

- $1-\frac{Ethylethyl}{Ethyl}-5-\frac{3-[2-oxo-2-(1-piperidinyl)ethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,$
- 2-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}-*N*-(phenylmethyl)acetamide,
- 2-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}-*N*,*N*-dimethylacetamide,
- N-Ethylethyl-2-{5-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}acetamide,
- $1-Ethylethyl-5-{3-[1-(4-morpholinyl)ethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,$
- 5-[3-(-Cyclohexylcyclohexylmethyl)-1,2,4-oxadiazol-5-yl]-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-{3-[2-oxo-2-(1-piperidinyl)ethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1-ethyl-5- $\{3-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-1,2,4-oxadiazol-5-yl\}-N-(tetrahydro-2$ *H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(1H-1,2,3-triazol-1-ylmethyl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-{5-[(2,4-Dimethyldimethyl-1,3-thiazol-5-yl)methyl]-1,3,4-oxadiazol-2-yl}-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1—Ethylethyl-5-[5-(2-furanylmethyl)-1,3,4-oxadiazol-2-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(3-isoxazolylmethyl)-1,3,4-oxadiazol-2-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- $1-ethyl-5-(5-\{[4-(methyloxy)phenyl]methyl\}-1,3,4-oxadiazol-2-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,$
- 1—Ethylethyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(1H-tetrazol-1-ylmethyl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 1—Ethylethyl-5-[5-(5-isothiazolylmethyl)-1,3,4-oxadiazol-2-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- $1-\underline{\text{Ethylethyl}}\text{-}5-\{5-[(3-\text{methyl-}5-\text{isoxazolyl})\text{methyl}]-1,3,4-\text{oxadiazol-}2-\text{yl}\}-N-\\ (\text{tetrahydro-}2H-\text{pyran-}4-\text{yl})-1H-\text{pyrazolo}[3,4-b]\text{pyridin-}4-\text{amine},$

- 5-(5-{[4-(Dimethylaminodimethylamino)phenyl]methyl}-1,3,4-oxadiazol-2-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine (1:1),
- 1-Ethylethyl-5- $\{5$ -[(2-methyl-1,3-thiazol-4-yl)methyl]-1,3,4-oxadiazol-2-yl $\}$ -N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 2-[1-({5-[1-ethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}methyl)cyclopentyl]-*N*-methylacetamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-
- b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}methyl)cyclopropanecarboxamide,
- 1-Ethylethyl-5- $\{5$ -[(5-methyl-3-isoxazolyl)methyl]-1,3,4-oxadiazol-2-yl $\}$ -N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- $1-Ethylethyl-5-\{5-[(5-methyl-3-isoxazolyl)methyl]-1,3,4-oxadiazol-2-yl\}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,$
- 1-Ethylethyl-5-{5-[2-(4-methyl-1,3-thiazol-5-yl)ethyl]-1,3,4-oxadiazol-2-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 5-{5-[(3,5-Dimethyldimethyl] -4-isoxazolyl)methyl]-1,3,4-oxadiazol-2-yl}-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- N-(1-{5-[1-Ethylethyl -4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}ethyl)acetamide,
- $5-\{5-[(1-acetyl-4-piperidinyl)methyl]-1,3,4-oxadiazol-2-yl\}-1-ethyl-N-(tetrahydro-2$ *H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-{5-[(4-methylphenyl)methyl]-1,3,4-oxadiazol-2-yl}-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-[5-(4-methylphenyl)-1,3,4-oxadiazol-2-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-[5-(3,4-Dimethylphenyldimethylphenyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-[5-(2,4-Dimethylphenyldimethylphenyl)-1,3,4-oxadiazol-2-yl]-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-{5-[(4-Bromophenyl)methyl]-1,3,4-oxadiazol-2-yl}-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 2-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-*N*-(phenylmethyl)-1,3-oxazole-4-carboxamide,

- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-{[4-(methyloxy)phenyl]methyl}-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-[(2-methylphenyl)methyl]-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-[(4-methylphenyl)methyl]-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-[(3-methylphenyl)methyl]-1,3-oxazole-4-carboxamide,
- N-[(4-Chlorophenylchlorophenyl)methyl]-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- N-[(2,3-Dimethylphenyldimethylphenyl)methyl]-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- N-[(3,5-Dimethylphenyldimethylphenyl)methyl]-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- N-[(3,4-Dimethylphenyldimethylphenyl]-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-(1-phenylethyl)-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl -4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-{(1R)-1-[4-(methyloxy)phenyl]ethyl}-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-[(1R)-1-phenylpropyl]-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-(4-methylphenyl)-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-({4-[(methylsulfonyl)amino]phenyl}methyl)-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-{[4-(methylsulfonyl)phenyl]methyl}-1,3-oxazole-4-carboxamide,
- N-(1-Acetyl-4-piperidinyl)-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-(tetrahydro-2H-pyran-4-yl)-1,3-oxazole-4-carboxamide,

- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-(tetrahydro-2-furanylmethyl)-1,3-oxazole-4-carboxamide,
- 2-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-[2-(4-methyl-1-piperazinyl)ethyl]-1,3-oxazole-4-carboxamide,
- N-[1-(Aminomethylaminomethyl)cyclohexyl]-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-N-methyl-1,3-oxazole-4-carboxamide,
- N-(2,6-Dimethylphenyldimethylphenyl)-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- N-{[4-(Aminocarbonylaminocarbonyl)phenyl]methyl}-2-[1-ethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,3-oxazole-4-carboxamide,
- $2-\{5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl\}-N-(tetrahydro-2H-pyran-4-yl)acetamide,$
- $5-\{3-[2-(2,6-Dimethyldimethyl]-4-morpholinyl)-2-oxoethyl]-1,2,4-oxadiazol-5-yl\}-1-ethyl-$ *N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-{3-[2-(4-methyl-1-piperidinyl)-2-oxoethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 2-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-
- $b] pyridin-5-yl]-1,2,4-oxadiazol-3-yl\}-N-[1-methyl-2-(methyloxy)ethyl] acetamide,$
- $5-\{3-[2-(3,5-\underline{Dimethyl}\underline{dimethyl}-1-piperidinyl)-2-oxoethyl]-1,2,4-oxadiazol-5-yl\}-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,$
- 1-Ethylethyl-5-{3-[2-(3-methyl-1-piperidinyl)-2-oxoethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,
- 2-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}-*N*-3-pyridinylacetamide,
- 6-{5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,3,4-oxadiazol-2-yl}-2-piperidinone,
- 1-Ethylethyl -5-{5-[(3-methyl-1*H*-1,2,4-triazol-5-yl)methyl]-1,3,4-oxadiazol-2-yl}-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)acetamide,

- N-({5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)benzamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-phenylacetamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-methylpropanamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-3-methylbutanamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)cyclohexanecarboxamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-furancarboxamide,
- N-({5-[1-Ethylethyl] -4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)methanesulfonamide,
- N-({5-[1-Ethylethyl -4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)benzenesulfonamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-1-phenylmethanesulfonamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-propanesulfonamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-1-propanesulfonamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)cyclopropanesulfonamide,
- N-({5-[1-Ethylethyl-4-(tetrahydro-2H-pyran-4-ylamino)-1H-pyrazolo[3,4-b]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-thiophenesulfonamide,
- 1-({5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-pyrrolidinone,
- 1-({5-[1-Ethylethyl-4-(tetrahydro-2*H*-pyran-4-ylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-5-yl]-1,2,4-oxadiazol-3-yl}methyl)-2-piperidinone,
- $5-{3-[(1-Acetylacetyl-4-piperidinyl)methyl]-1,2,4-oxadiazol-5-yl}-1-ethyl-N-(tetrahydro-2$ *H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,

- 1-Ethylethyl-5-(3-{[1-(3-methylbutanoyl)-4-piperidinyl]methyl}-1,2,4-oxadiazol-5-yl)-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-(3-{[1-(methylsulfonyl)-4-piperidinyl]methyl}-1,2,4-oxadiazol-5-yl)-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-{3-[1-(phenylsulfonyl)cyclopropyl]-1,2,4-oxadiazol-5-yl}-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-[3-(phenylmethyl)-1,2,4-oxadiazol-5-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-[3-(1-phenylethyl)-1,2,4-oxadiazol-5-yl]-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-(3-{[4-(methyloxy)phenyl]methyl}-1,2,4-oxadiazol-5-yl)-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-(3-{[4-(Dimethylaminodimethylamino)phenyl]methyl}-1,2,4-oxadiazol-5-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-(3-{[3-(Dimethylaminodimethylamino)phenyl]methyl}-1,2,4-oxadiazol-5-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-(3-{[4-(-Dimethylamino)phenyl]methyl}-1,2,4-oxadiazol-5-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- $1-\underline{\text{Ethylethyl}}-5-\{3-[(\text{phenyloxy})\text{methyl}]-1,2,4-\text{oxadiazol}-5-\text{yl}\}-\textit{N}-(\text{tetrahydro-}2\textit{H}-\text{pyran}-4-\text{yl})-1\textit{H}-\text{pyrazolo}[3,4-\textit{b}]\text{pyridin}-4-\text{amine},$
- 1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-5-[3-(5,6,7,8-tetrahydro[1,2,4]triazolo[4,3-*a*]pyridin-3-ylmethyl)-1,2,4-oxadiazol-5-yl]-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-{3-[(4-phenyl-1-piperazinyl)methyl]-1,2,4-oxadiazol-5-yl}-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-(5-ethyl-1,2,4-oxadiazol-3-yl)-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 5-(5-{[4-(Dimethylaminodimethylamino)phenyl]methyl}-1,2,4-oxadiazol-3-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine,
- 1-Ethylethyl-5-(5-{[4-(methyloxy)phenyl]methyl}-1,2,4-oxadiazol-3-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine, or

5-(3,8-Dioxadioxa-1-azaspiro[4.5]dec-1-en-2-yl)-1-ethyl-*N*-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazolo[3,4-*b*]pyridin-4-amine; or a salt thereof.

43. (currently amended) A compound or salt as claimed in any of claims claim 1 to 38, which is:

1-Ethylethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 14),

5-(5-Terttert-butyl-1,3,4-oxadiazol-2-yl)-1-ethyl-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 17),

1-Ethylethyl-5-{5-[(methylsulfonyl)methyl]-1,3,4-oxadiazol-2-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 23),

1-Ethylethyl-5-[5-(3-methyloxetan-3-yl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 34),

1-Ethylethyl-5-{5-[(4-methylpiperazin-1-yl)methyl]-1,3,4-oxadiazol-2-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine,

1-Ethylethyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(tetrahydro-2H-pyran-4-yl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine, also named: 1-ethyl-5-[5-(morpholin-4-ylmethyl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 39),

1-Ethylethyl-5-[5-(tetrahydrofuran-2-yl)-1,3,4-oxadiazol-2-yl]-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 44),

1-Ethylethyl-N-(tetrahydro-2H-pyran-4-yl)-5-[5-(tetrahydro-2H-pyran-4-ylmethyl)-1,3,4-oxadiazol-2-yl]-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 77), or

1-Ethylethyl5-{3-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1,2,4-oxadiazol-5-yl}-N-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-b]pyridin-4-amine (the compound of Example 84);

or a salt thereof.

44. – 47. (cancelled)

- (currently amended) A pharmaceutical composition comprising a compound of formula (I) or (IA), as defined in any of claims claim 1 to 46, or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable carriers and/or excipients.
- 49. (cancelled).
- 50. (original) A pharmaceutical composition as claimed in claim 48 which is suitable for and/or adapted for oral administration.
- 51 52 (cancelled)
- 53. (currently amended) A method of treatment and/or prophylaxis of an inflammatory and/or allergic disease or cognitive impairment in a neurological disorder in a mammal such as a human in need thereof, which method comprises administering to the mammal a therapeutically effective amount of a compound of formula (I) or (IA), as defined in any of claims claim 1 to 46, or a pharmaceutically acceptable salt thereof.
- 54. (currently amended) A composition, or the use or a method as claimed in claim 53, wherein the composition or medicament or method is for the treatment and/or prophylaxis of chronic obstructive pulmonary disease (COPD), asthma, rheumatoid arthritis or, allergic rhinitis or atopic dermatitis in a mammal such as a human.
- 55. (currently amended) A composition, the use or a method as claimed in claim 54, wherein the composition or medicament or method is for the treatment and/or prophylaxis of chronic obstructive pulmonary disease (COPD) in a mammal such as a human.

- 57. (currently amended) A composition, the use or a method as claimed in any of claims 51 to 56 claim 55, wherein the composition or medicament is for oral administration and is a pharmaceutical composition as defined in claim 50, or wherein the method comprises oral administration to the mammal of a pharmaceutical composition suitable for oral administration and as defined in claim 50.
- 58. (new) A compound or salt as claimed in claim 24, wherein R¹ is ethyl.
- (new) A compound or salt as claimed in claim 28, wherein R¹ is ethyl.
- 60. (new) A compound or salt as claimed in claim 24, wherein Het is of subformula (ia), (ib), (ic), or (id):

- 61. (new) A compound or salt as claimed in claim 60 wherein wherein R¹ is ethyl.
- 62. (new) A compound or salt as claimed in claim 28, wherein Het is of subformula (ia), (ib), (ic), or (id):

63. (new) A compound or salt as claimed in claim 62, wherein wherein R¹ is ethyl.